

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A heating element comprising an electrically insulating layer and an electrically conductive layer, wherein at least the electrically conductive layer is based on a hybrid sol-gel precursor comprising an organosilane compound, wherein the electrically insulating layer comprises non-conductive particles having longest dimension of 2-500 micrometers.

2. (Currently Amended) A The heating element according to claim 1, characterized in that the hybrid sol-gel precursor comprises a compound from the group of alkyl-alkoxysilanes.

Claims 3-4 (Cancelled)

5. (Currently Amended) A-The heating element according to ~~claim 4~~ claim 1, wherein the electrically insulating layer comprises anisotropic, non-conductive particles.

6. (Currently Amended) A-The heating element according to claim 1, wherein the electrically conductive layer comprises conductive and/or semi-conductive particles, as well as an amount of insulating particles in a quantity of 0-20 % by volume.

7. (Currently Amended) A-The heating element according to claim 6, wherein the electrically conductive layer comprises metal particles.

8. (Currently Amended) A-The heating element according to claim 7, wherein the electrically conductive layer comprises silver or silver alloy particles.

9. (Currently Amended) A-The heating element according to claim 6, wherein the electrically conductive layer comprises graphite or carbon-black particles.

10. (Currently Amended) A The heating element according to claim 1, wherein the electrically conductive layer does not exceed 30 mm in thickness and preferably does not exceed 15 mm in thickness.

11. (Currently Amended) A The heating element according to ~~claim 1 further comprising an~~ 1, wherein the insulating layer ~~having has~~ a thickness of 25-100 mm, ~~preferably 35-80 mm~~.

12. (Currently Amended) A The heating element according to claim 1, wherein the heating element is applied on an aluminum or aluminum alloy substrate.

13. (Currently Amended) An electrical domestic appliance, comprising:

a heating element, which comprises:

an electrically insulating layer; and

an electrically conductive layer;

wherein at least the electrically conductive layer is based on

a hybrid sol-gel precursor comprising an organosilane compound, and  
wherein the electrically insulating layer comprises non-  
conductive particles having longest dimension of 2-500 micrometers.

14. (Currently Amended) ~~An~~ The electrical domestic appliance according to claim 13, wherein the electrical domestic appliance is one of: an iron, a hair dryer, a hair styler, a steamer, a steam cleaner, a garment cleaner, a heated ironing board, a facial steamer, a kettle, a pressurized boiler for system irons and cleaners, a coffee maker, a deep fat fryer, a rice cooker, a sterilizer, a hot plate, a hot-pot, grill, a space heater, a waffle iron, a toaster, an oven, or a water heater.

15. (New) The heating element of claim 1, wherein the non-conductive particles comprise 4-10 % by volume of the electrically insulating layer.

16. (New) The heating element of claim 1, wherein the non-conductive particles have a flat shape.

17.(New) The electrical domestic appliance of claim 13, wherein the non-conductive particles comprise 4-10 % by volume of the electrically insulating layer.

18.(New) The electrical domestic appliance of claim 13, wherein the non-conductive particles have a flat shape.